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Title :
RFID Adoption Intention in Retail Sector in Malaysia

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Radio frequency identification (RFID) technology can be considered as an important application in retail operations and supply chain management (SCM) to increase the companies' performance via tracking the real location information of products or equipment throughout the supply chain. Nevertheless, the expected rapid industry adoption of RFID has not taken place up to today as no supply chain organizations in Malaysia have adopted RFID yet. At the other side, Academic researches on RFID's adoption in supply chain domain are still lacking. Regarding the control power of retailers in the supply chain, it is important to explore and investigate the basic drivers and obstacles in deciding to adopt RFID in the retail supply chain (RSC). Hence, this study aims to identify and evaluate a comprehensive set of factors that may influence RFID adoption intention in RSC in Malaysia and ascertain the inhibitors and facilitators of the adoption. To do this, an exploratory survey questionnaire was applied to collect data from 221 IT and Management Personnel in both Retailer and Hypermarket Sectors. This data was analyzed using the structural equation modelling technique. As the results, a comprehensive theoretical framework of IT innovation adoption in the supply chain and

at inter-organizational level of analysis was proposed. Considering strategic choice and institutional rationales perspectives, the framework provided a four-dimensional evaluation framework which includes technological, organizational, inter-organizational and environmental aspects of the adoption. The results showed that out of 27 proposed initial factors, 14 factors were found to be important in the intention to adopt RFID in RSC in Malaysia. They are financial justification, return on investment, ease of use, trialability, reliable maturity, standard maturity, organizational readiness, organizational scale, employees' cooperation, coercive regulatory pressure, normative trading partner communicability, mimetic competitive pressure, availability of adoption support and privacy & security. It was also found that high costs of RFID adoption, Low rate of return on investment, existing of a weak market competition environment, unavailability of information, service providers and equipment of RFID technology, small volume of transaction and lack of proper communication between the organizations and their trading partners are the important barriers toward the RFID adoption. Meanwhile, easiness of using and implementing RFID, acceptable reliability of data captured by RFID, high organizations' readiness in adopting RFID and high employees' cooperation in adopting IS like RFID technology was found as the facilitators toward the technology adoption. The results also indicated that perceived technological factor of RFID could mediate the relationship between RFID adoption intention and its organizational, inter-organizational and environmental drivers. Moreover, it was observed that high level of RFID radicalness provides a greater profound effect on the relationship between technological factor and RFID adoption intention, indicating the moderation effect of RFID radicalness. Upon the results of the research, managerial implications and scholar contributions were discussed accordingly.

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